

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims in the application:

1-357. Canceled.

358. (Currently Amended) A method for performing operations on a stainer in a stainer network comprising:

providing a robotic head coupled to the stainer;

establishing a network connection between a computer and a stainer in the stainer network;

sending commands from the computer to the stainer over the network connection;

processing a first sample with the stainer using the commands received from the first computer, wherein said processing comprises dispensing reagents to the sample with a the robotic head; and

inserting ~~at least one reagent into the stainer or~~ a second sample into the stainer and optionally at least one reagent into the stainer during the processing of at least one other sample and beginning processing of the second sample without interrupting the dispensing of reagents onto the first sample with the robotic head.

359. (Previously Presented) The method of claim 358, wherein the computer is a server and wherein the stainer is a client of the server.

360. (Previously Presented) The method of claim 359, wherein the server includes a centralized database including configuration information for the stainer.

361. (Previously Presented) The method of claim 358, wherein the stainer network is connected to a laboratory information system.

362. (Previously Presented) The method of claim 361, further including sending commands and queries from the laboratory information system to a database associated with the stainer comprising information about the stainer, wherein the database comprises information including status information on stainlers, slides, consumables, and treatment protocols associated with of the stainer.

363. (Previously Presented) The method of claim 362, wherein the commands and queries further comprise database maintenance operations including information purging, information compaction, and database information back-up operations.

364. (Previously Presented) The method of claim 358, further comprising running diagnostic tests on the stainer, and retrieving diagnostic information about the stainer from the database, and providing information to a user.

365. (Previously Presented) The method of claim 364, further comprising  
~~running diagnostic tests to actively exercise exercising components on the stainer as a diagnostic test.~~

366. (Canceled)

367. (Previously Presented) The method of claim 365, further comprising electronically notifying an operator about the results of the diagnostic tests.

368. (Previously Presented) The method of claim 358, further comprising performing automatic diagnostic operations on the stainer while operating other stainlers in the stainer network, wherein the operations of the other stainlers are not materially affected by the operations of the stainer.

369. (Previously Presented) The method of claim 358, further comprising monitoring by the computer a status of at least one of the first sample or the second sample in the stainer.

370. (Previously Presented) The method of claim 358, further comprising obtaining providing by the computer a real-time estimate of a completion time of the first sample being processed by the stainer.

371. (Previously Presented) The method of claim 358, further comprising  
sending encrypting the encrypted commands and queries sent over the network  
connection.

372. (Currently Amended) A method for performing operations on a stainer in a  
stainer.network comprising:

providing a robotic head coupled to the stainer;  
establishing a network connection between a computer and a stainer in the  
stainer network;  
sending commands from the computer to the stainer over the network  
connection;  
sending queries from a laboratory information system connected to the network  
to a database, wherein the database contains status information chosen from slides on  
the stainer, amounts of consumables on the stainer or treatment protocols performed on  
the stainer;  
processing a first sample with the stainer using the commands received from the  
computer, wherein said processing comprises dispensing reagents to the sample with a  
the robotic head; and  
inserting at least one reagent into the stainer or a second sample into the stainer  
and optionally at least one reagent into the stainer during the processing of at least one  
other sample and beginning processing of the second sample without interrupting the  
dispensing of reagents onto the first sample with the robotic head..

373. (Previously Presented) The method of claim 372, wherein the stainer network further includes a server and a plurality of stainers including the stainer, and wherein the stainer is a client of the server.

374. (Previously Presented) The method of claim 373, wherein the server includes a centralized database comprising configuration information for the stainer.

375. (Previously Presented) The method of claim 372, wherein the commands and the queries further comprise database maintenance operations including information purging, information compaction, and database information.

376. (Previously Presented) The method of claim 372, wherein the stainer is a first stainer, the method further comprising:

providing a second stainer;

checking by the computer for a malfunction in the first stainer;

sending the commands to a second stainer when the first stainer malfunctions.

377. (Previously Presented) The method of claim 376, further comprising running diagnostic tests on the stainer and retrieving diagnostic information about the stainer from the database.

378. (Previously Presented) The method of claim 377, further comprising  
running diagnostic tests to actively exercise exercising components on the stainer as a  
diagnostic test.

379. (Canceled)

380. (Previously Presented) The method of claim 378, further comprising  
electronically notifying an operator about the results of the diagnostic tests.

381. (Previously Presented) The method of claim 372, wherein the stainer is  
configured to be controlled from a remote location.

382. (Previously Presented) The method of claim 372, further comprising  
performing automatic diagnostic operations on the stainer while operating other stainlers  
in the stainer network, wherein the operations of the other stainlers are not materially  
affected by the operations of the stainer.

383. (Previously Presented) The method of claim 372, further comprising  
monitoring by the computer the status of at least one of the first sample or the second  
sample in the stainer.

384. (Previously Presented) The method of claim 372, further comprising  
obtaining providing by the computer a real-time estimate of the completion time of the  
first sample being processed by the stainer.

385. (Previously Presented) The method of claim 372, further comprising  
sending encrypting the encrypted commands and queries sent over the network  
connection.